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Pericarditis caused by *Corynebacterium urealyticum*

Corynebacterium urealyticum, formerly known as *Corynebacterium* group D2 or CDC group D2 [1], is an aerobic, catalase-positive, Gram-positive bacillus which shows resistance to multiple antibiotics. It has been associated mainly with infections of the urinary tract [2], and the isolation of this organism in other infections is very unusual. We report the first case, to our knowledge, in which *C. urealyticum* is associated with pericarditis.

A 55-year-old woman with a medical history of diabetes mellitus was admitted to the emergency room with a 2-week history of lower retrosternal pain and dyspnea. On examination she was pyrexial (38 °C) and tachypneic. There were no pericardial or pleural rubs. The patient was alert and orientated. Results of laboratory studies were as follows: hemoglobin level, 10.4 g/dL; white blood cell count, 9910/mm^3 (79% neutrophils, 13% lymphocytes, 6.9% monocytes and 0.9% eosinophils); erythrocyte sedimentation rate, 56 mm/h. The urea and electrolyte values were normal. The plasma glucose was elevated at 296 mg/dL. The electrocardiogram (ECG) and chest X-ray were normal. Two-dimensional echocardiograms revealed mild cardiomegaly with normal myocardial contractibility, and a big pericardial effusion with fibrinous bands; no echocardiographic signs of cardiac tamponade were observed. A diagnosis of acute pericarditis was made, and pericardiocentesis was prescribed. Seven hundred milliliters of a purulent pericardial fluid were obtained. Histologic examination and Gram stain of the fluid only showed many polymorphonuclear cells. Cultures were performed on blood and chocolate agar, McConkey agar, Sabouraud agar and Brucella agar. An aerobic, catalase-positive bacillus with the typical appearance of diphtheroids grew in pure culture in blood and chocolate agar. The organism was initially identified as *C. urealyticum* by the API Coryne System (BioMerieux, Mazcy l'Etoile, France). Conventional methods of identification confirmed that the organism was *C. urealyticum* [1]. The isolate was characterized by the strong urease activity and the inability to ferment glucose or reduce nitrate. Antimicrobial susceptibility tests were performed by the Kirby–Bauer disk diffusion method on Mueller–Hinton agar with 5% sheep blood. The organism was susceptible to rifampicin, teicoplanin and vancomycin, and resistant to penicillin, imipenem, gentamicin, erythromycin and ciprofloxacin. After treatment with intravenous vancomycin for 2 weeks, the patient made a rapid and full recovery. An echocardiogram on day 15 of admission was normal, with no evidence of pericardial effusion. The blood cultures as well as the urine cultures were repeatedly negative. Investigation for mycobacteria, fungi and viruses was negative.

C. urealyticum has been reported to frequently colonize the skin of hospitalized patients [3]. Despite frequent coloniza-

tion, *C. urealyticum* rarely causes infection outside of the urinary tract. A limited number of non-urinary infections caused by this organism have been reported: some cases of endocarditis [4–6], bacteremia [7–11], postsurgical osteomyelitis [12], peritonitis in outpatients with chronic peritoneal dialysis [13], necrotic infection of soft tissue [14] and wound infections [8]. Most of these infections were hospital-acquired, the patients had been previously treated with antibiotics, and the infection, in many cases, was related to previous surgery or invasive manipulations.

To our knowledge, this is the first case of a pericarditis caused by *C. urealyticum*. In a literature search for the period 1984–99 via MEDLINE, no other case was found. Our case involved pericarditis in a diabetic patient who had not been previously treated with antimicrobial agents and had not acquired the infection in the hospital, and on whom no invasive diagnostic procedure or surgery had been previously performed. Due to the unusual localization of this infection, establishing the pathogenicity of this microorganism may be difficult. *C. urealyticum* was the only organism isolated from the pericardial fluid, and since the symptoms resolved after the organism was eliminated by antibiotic treatment, we believe that this bacterium was the etiologic agent of the infection. Diabetes was the only underlying predisposing factor that may contribute to the pathogenicity of this strain.

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Infective endocarditis due to *Clostridium histolyticum*

Endocarditis caused by anaerobic and micro-aerophilic bacteria accounts for 7–10% of all cases of infectious endocarditis [1].

The most frequently reported causes of anaerobic endocarditis are *Bacteroides* (particularly the *B. fragilis* group), and anaerobic *Streptococcus*, *Clostridium, Peptostreptococcus*, *Fusobacterium, Propionibacterium* and *Lactobacillus* species occasionally cause endocarditis [2]. Only 25 cases of clostridial endocarditis have been reported to date, and the most common species was *C. perfringens* [3–7]. To our knowledge, this case is the first occurrence of *Clostridium histolyticum* endocarditis reported in the literature.

An 18-year-old woman was admitted to the Turgut Ozal Medical Center (Malatya, Turkey) following a 20-day history of cough, yellowish-green sputum, and fever; however, she had not experienced dyspnea. She denied smoking and use of drugs. On physical examination, the patient appeared toxic, with an axillary temperature of 39 °C; pulse rate of 85/min, blood pressure of 90/60 mmHg, and respiratory rate of 20/min. A widespread systolodiastolic murmur could be heard on chest auscultation. Auscultation of the lungs revealed crepitant rales over the basal areas, but no pleural rub was noticed. No other anomalies were detected, and pelvic examination did not reveal any foreign body. The results of a neurologic exami-